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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,553	12/20/2001	Matthew J. Birdsall	P105 CON 3	6097

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MEDTRONIC AVE, INC.  
3576 UNOCAL PLACE  
SANTA ROSA, CA 95403

EXAMINER

THALER, MICHAEL H

ART UNIT PAPER NUMBER

3731

DATE MAILED: 02/04/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/029,553

Applicant(s)


BIRDSALL ET AL.

Examiner

Michael Thaler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-25, 28, 31, 32 and 36-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-25, 28, 31, 32 and 36-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Nov. 7, 2003 has been entered.

The disclosure is objected to because of the following informalities: On page 12, second full paragraph, "and/or with the surfaces of the top and bottom portions exhibiting substantially similar absolute radii of curvature" is inconsistent with figures 3A and 3B which show the top and bottom portions as being substantially flat. Appropriate clarification or correction is required.

Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 39 is limited to the embodiment of figure 3B since only this embodiment shows top and bottom sides which are substantially flat and left and right sides which are substantially curved. However, there is no "edge" in this embodiment where the top side joins the left and right sides (as

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defined in claim 37, from which claim 39 depends). Although an edge can either be sharp or smooth and rounded, the curved or rounded portion at the top left portion of figure 3B is part of the claimed left side rather than an edge. Put another way, an edge between two surfaces, by definition, must have a shape different than the surfaces which meet to form the edge. Where does the "edge" and the left side (or surface) in figure 3B meet?

Claims 37, 38, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Disclosure in view of Alt et al. (5,843,117). Applicant admits that the stent shown in figure 2C of applicant's disclosure is prior art. This shape fails to include a smooth rounded edge between the sides. However, Alt et al. teaches that a stent should be machined to round all of its sharp corners in order to facilitate easy movement of the stent through the blood vessel and prevent damage to the blood vessel or balloon (col. 6, lines 31-45, col. 14, lines 60-62 and col. 15, lines 16-18). It would have been obvious to round the corners of the prior art stent shown in figure 2C of the application so that it too would have these advantages.

Claims 20-25, 28, 31, 32 and 36-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Summers (6,080,191) in

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view of Alt et al. (5,843,117). Summers shows a stent comprising at least one strut having a transverse cross section (shown in figure 19A), the transverse cross section having a top substantially flat circumferential side (at the top of figure 19A), a bottom substantially flat circumferential side (at the bottom of figure 19A), a right side (at the right of the figure) and a left side (at the left of the figure). Summers fails to show the left and right sides as being substantially curved. However, Alt et al. teaches that a stent should be machined to round all of its sharp edges in order to facilitate easy movement of the stent through the blood vessel and prevent damage to the blood vessel or balloon (col. 6, lines 31-45, col. 14, lines 60-62 and col. 15, lines 16-18). It would have been obvious to round the left and right sides (i.e. the left and right edges) of the Summers stent shown in figure 19A so that it too would have these advantages. As to claims 20 and 31, note that the Summers strut 150 is so thin as compared to its width (as shown in figure 19A), that the left and right sides shown in this figure are edges. Thus, when following the Alt et al. teaching of round all of sharp edges of a stent strut, it would have been obvious to round the entire left and right sides (edges) of the Summers strut 150. As to claim 21, Summers, in figure 21, shows a plurality of straight sections i.e. the

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sections of spine 162 between the looped ribs (161 in the figure or 164 in the specification) joined by a plurality of crown sections i.e. the looped ribs 161, 164 as broadly claimed. As to claim 24, Summers, in figure 17, shows stent 122 fused to a second stent 126. As to claim 28, Summers discloses a self expanding stent in col. 5, lines 19-22.

Applicant's arguments filed Nov. 7, 2003 have been fully considered but they are not persuasive. As to claim 37, the prior art shown in figure 2C of applicant's disclosure has a top side which is substantially flat. This prior art also has sharp corners. Alt et al. teaches that a stent should be machined to round all of its sharp corners in order to facilitate easy movement of the stent through the blood vessel and prevent damage to the blood vessel or balloon. Therefore, it would have been obvious to round the sharp corners of the prior art stent shown in figure 2C of the application so that it too would have these advantages. As to all of the claims, Alt et al. is not limited to an oval cross-section but includes any rounded cross-section (col. 14, lines 17-20). Thus, the rounded cross section which results from the rounding of the corners of either primary reference but which leaves flat sides is not inconsistent with Alt et al.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Thaler whose telephone number is (703) 308-2981. The examiner can normally be reached Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Milano can be reached on (703)308-2496. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0858.

mht  
2/3/04



MICHAEL THALER  
PRIMARY EXAMINER  
ART UNIT 3731